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6.3. Rock Geochemistry

Costean 1000N was channel sampled in 4m sections. The costean was excavated on line 1000N, from 3520E to 3980E, to test coincident tin, zinc and copper soil anomalies, and to investigate the extent of the sulphide mineralisation associated with the metasomatised Argillite Sequence. The values are shown plotted on plans TAS/2/1558 and TAS/2/1559. Overall the background values for tin, zinc, lead, manganese and copper are anomalous, but there are no intersections of economic significance. The highest consistent tin values occur in the amphibolitised basaltic volcanomict conglomerates and breccias with interbedded argillites, and in the metasomatised basaltic volcanoclastic greywacke units finely interbedded with the predominantly argillite sequence to the east. The highest lead values occur in the epidotised gabbro breccia near the western contact of the Basaltic Complex. Copper and zinc are uniformly dispersed, although zinc appears to be depleted in the sections made up mainly of chert conglomerate and argillite. There seems to be little correlation between the elements; arsenic values have no apparent relation to tin, and manganese values appear to be independent of copper, lead or zinc.

Costean 1200N was excavated on line 1200N, from 4300E to 4600E, and channel samples were collected over 4m intervals. The costean was required in order to investigate coincident induced polarisation anomalies (high resistivity with moderate chargeability), linear magnetic anomalies (L₁, L₂), and sporadic tin, copper and lead anomalous soil values. The values of copper, manganese, tin, zinc and lead in the channel samples are generally low and not of economic significance. The highest tin value of 300 ppm is in the sample from 36m to 40m, where there is a southerly plunging anticlinal drag fold. The higher bedrock metal values occur in the western sector of the costean, where minor folding and axial plane cleavage is fairly intense. The higher values are also coincident with the more metasomatised and hornfelsed rocks.

Costean 3200N, A and B, (plan TAS/2/1562) were excavated to investigate the hydrothermally altered serpentinitised ultramafic-mafic complex at Grid 4, where there are well defined induced polarisation,